



# California State University SAN MARCOS

Biol 404/604  
Biol 404L/604L

Department of Biological Sciences California State University San Marcos 333 S. Twin Oaks Valley Road San Marcos, CA 92096-0001  
Tel: 760.750.8508 Fax: 760.750.3063 cmueller@csusm.edu www.csusm.edu/biology

To: UCC Chair  
From: Casey Mueller  
Subject: Dual-listing BIOL 404/604 and BIOL 404L/604L

Biology is interested in dual-listing classes to address a specific shortcoming in our MS program. Enrollment of graduate students in graduate elective classes is often too small to offer graduate-only electives. Our past solution to this problem has been either to offer graduate electives at a 500-level (because undergraduates can take them and boost enrollment), or to have our graduate students take 400-level undergraduate courses and then petition to use them for their MS degree. Our MS students end up with very few electives on their transcripts that are 600-level. Regardless of how we actually teach these classes, the difference in course numbering between 500 and 600-level gives the impression to others that our students are not taking challenging coursework. This serves our MS students poorly. We wish to offer our MS students as many 600-level classes as possible, but pairing 400-level with 500-level classes does not increase the number of 600-level classes we offer.

We currently have two 400-level and 600-level class pairings in Biology (BIOL 420/620 and BIOL 463/663). While these classes mix undergraduates and graduates together in lectures, this is the only portion of the class that cannot be differentiated between them, and this will be replicated for BIOL 404/604 and BIOL 404L/604L. We will ask graduate students to do additional readings from the primary scientific literature, and to demonstrate a higher level of understanding and synthesis of class material in every other aspect of the class (such as exams, lab papers, and discussion forums). For example, essay exams can have different questions for graduate and undergraduate students, with questions on the graduate exam that ask them to evaluate their readings and synthesize them into a coherent essay. Having both student groups in the same lecture or lab is not a problem, since the subject will be new to both groups of students, and both groups will need to learn the basic information in the field that is presented in class. In other words, students will all be expected to have some background knowledge of physiology, but not developmental physiology in particular. Since our 400-level classes have 300-level prerequisites (BIOL 353 comparative animal physiology in this case), both groups should be able to handle the lecture and lab material.

In short, the 400/600 pairing allows us to increase the number and rigor of our graduate courses while simultaneously maintaining the enrollment levels needed to offer the classes at all. This pairing should benefit both undergraduate and graduate students by increasing the diversity of electives available to both groups, at a level appropriate to their degree program.



The California State University

Bakersfield | Channel Islands | Chico | Dominguez Hills | East Bay | Fresno | Fullerton | Humboldt | Long Beach | Los Angeles | Maritime Academy  
Monterey Bay | Northridge | Pomona | Sacramento | San Bernardino | San Diego | San Francisco | San Jose | San Luis Obispo | San Marcos | Sonoma | Stanislaus